

DEPARTMENT OF HEALTH AND HUMAN SERVICES
PUBLIC HEALTH SERVICE
CENTERS FOR DISEASE CONTROL AND PREVENTION

Minutes of Meeting

ADVISORY COMMITTEE ON IMMUNIZATION PRACTICES
October 19 & 20, 1994

Atlanta, Georgia

ADVISORY COMMITTEE ON IMMUNIZATION PRACTICES
Centers for Disease Control and Prevention
October 19-20, 1994 - Auditorium A

8:30 AM	Introduction	Dr. J. D. S. Dr. D. S. er
9:00 AM	Immunization Coverage in the United States	Ms. E. Z
9:30 AM	Varicella Vaccine Update	Dr. S. F. nes Dr. J. W. e
10:00 AM	Vaccine Safety Update	Dr. B. C. l Dr. Glas
10:30 AM	BREAK	
11:00 AM	Revision of ACIP Recommendations Based on Findings of the Institute of Medicine Report on Vaccine Safety	Dr. B. C. n Dr. J. T. e
11:45 AM	Update on Vaccine Schedule Simplification	Dr. J. G. ler Dr. S. H. er
12:30 PM	LUNCH	
1:45 AM	Update on Vaccine Schedule Simplification continued	Dr. J. G. ler Dr. S. H. er
2:00 PM	Revision of the Meningococcal Vaccine Recommendation	Dr. J. W. ger
2:15 PM	Review of Draft Recommendation on BCG	Dr. N. B. ey
2:35 PM	Revision of Polio Vaccination Recommendations	Dr. R. S. er
3:35 PM	BREAK	
3:45 PM	Status of Development of New Combination Vaccines (Manufacturers Reports)	Dr. J. H. zel Lederle Dr. B. H. e SmithK. e Beecham Dr. C. M. chievitz Conna t Dr. D. V. t Dr. J. W. e Merck
4:45 PM	ACIP Policies on "Catch-Up" Vaccinations	Dr. S. S. enbaum Harvar Hlth. Plan

5:15 PM Update on the Status of the Vaccines
for Children Program

Dr. J. C lero

5:45 PM Vaccination of Health Care Workers

Dr. R. S kas

6:15 PM **ADJOURN**

October 20

8:30 AM Adolescent and Adult Immunizations

Dr. A. E er
AMA
Dr. N. J sey
Johns pkins Univ.
Dr. R. S er
Dr. P. G lner
ACP
Dr. W. V liams

9:45 AM Revised Recommendations for
Hepatitis B Vaccination

Dr. H. M golis

10:45 AM The Need for ACIP Recommendations on Immunization
Practices: Immunization Linkage with WIC

Dr. E. I es
Mr. S. C nett
USDA
Dr. S. H hins
Dr. C. I aron

11:45 AM **BREAK**

12:30 PM Recommendations for Prevention of
Hepatitis A: Hepatitis A Vaccine
and Immune Globulin

Dr. C. S piro

1:45 PM Worldwide Diphtheria Outbreaks

Dr. I. H ly

2:00 PM National Vaccine Program Update

Dr. G. F inovich

2:15 PM Update on Injury Compensation Program

Dr. L. B

2:30 PM Public Comment

2:45 PM **ADJOURN**

ATTENDEES:

COMMITTEE MEMBERS PRESENT

Dr. Jeffrey Davis (Chair)
Dr. Barbara Ann DeBuono
Dr. Kathryn Edwards
Dr. Marie Griffin
Dr. Fernando Guerra
Dr. Neal Halsey
Dr. Rudolph Jackson
Dr. Steve Schoenbaum
Dr. F. Thompson
Dr. Joel Ward

Ex Officio Members

Dr. Carolyn Hardegree (FDA)
Dr. G. Rabinovich (LaMontagne)

Liaison Representatives

Dr. William Butler (DOD)
Dr. Richard Clover (ATPM)
Dr. Thomas Copmann (PhRMA)
Dr. David Fleming (HICPAC)
Dr. Pierce Gardner (ACP)
Dr. William Glezen (IDSA)
Dr. Caroline B. Hall (AAP)
Dr. Edward Mortimer (AMA)
Dr. Kristin Nichol (VA)
Dr. Georges Peter (AAP)
Dr. William Schaffner (AHA)
Dr. David Scheiffle (NACI)
Dr. Richard Zimmerman (AAFP)

Acting Executive Secretary

Dr. Dixie Snider

Officer of the Director

Heidi Steele

Office of the General Counsel

Mr. Kevin Malone

Office of Health and Safety

Olivia Huggins

Office of Public Affairs

Kay Golan

National Center for Infectious Diseases

Dr. Miriam Alter
Scott Dowell
Dr. James Hughes
Dr. Frank Mahoney
Dr. Harold Margolis
Dr. Joseph McDade
Dr. Gary Sanden
Dr. Craig Shapiro
Gary Schatz

National Center for Preventive Services

Rosamond Dewart

National Immunization Program

Elias Avery
Dr. William Atkinson
Dr. Francisco Averhoff
Dr. Bob Chen
Dr. Jose Cordero
Dr. Vance Dietz
Dr. Gary Euler
Judy Gantt
Dr. Jacqueline Gindler
Susan Good
Dalye Guris
Penina Haber
Dr. Steve Hadler
Dr. Iain Hardy
Dr. Sandra Holmes
Dr. Sonja Hutchins
Dr. Alan Kendal
Dr. Charles LeBaron
Mark Miller
Dr. W. Orenstein
Susan Roof
Steve Rosenthal
Bob Snyder
Dr. Peter Strebel
Dr. Ray Strikas
Dr. Roland Sutter
Frederik VanLoon
Dr. Walter Williams
Dr. Jessie Wing
Dr. J. Watson
Dr. Melinda Wharton
Elizabeth Zell

ATTENDEES CONTINUED:

Department of Defense

Dr. Michael Peterson

Health Care Financing Administration

Cindy Ruff

Food and Drug Administration

B.F. Anthony

Julia Barrett

Dr. Karen Goldenthal

Phil Krause

Dr. Margaret Mitrane

Navy Environmental Health Center

Ben Mitchell

National Vaccine Injury Compensation Program

Leslie Ball

Others Present

Florence Berut, Connaught Laboratories Inc.

Karen Batoosinge, Pediatric News

Dr. Dee Breeden, S.C. Department of Health and Environmental Control

Maureen Caulfield, Wyeth-Ayerst

Jill Chamberlin, Vaccine Bulletin

Dr. Ruth Ann Dunn, Michigan Department of Public Health

Peter C. Fusco, North American Vaccine, Inc.

Jesse E. Greene, R.N., S.C. Department of Health and Environmental Control

Dr. Jill Hackell, Lederle-Praxis Biologicals

A.J. Hostetter, AP

Barbara Howe, SmithKline Beecham

Clifton N. Irby, Christian Science Committee

Cheryl Pokalo Jones, Infectious Diseases in Children

Kathy Jordon, NAPNAP

Dr. David Krause, SmithKline, Beecham

Brian A. Lortie, SmithKline, Beecham

Carol McPhillips-Tangum, Prudential Center for Health Care Research

Francois Meurice, SmithKline Beecham

Dr. Carlton Meschievitz, Connaught Laboratories

Dr. David Nalin, MRL

Stan Plotkin, Pasteur-Merieux-Connaught

Leoff Porgos, Merck & Co.

Frederic E. Shaw, M.D., J.D., Health Policy Group

Robert G. Shannon, Merck & Co.

Judith Shindman, Connaught Laboratories, Ltd.

Dan Soland, Smith Kline Beecham

Barbara Sweeney, NAPNAP

Deborah A. Vaz, VRI

Thomas Vernon, Merck Vaccine Division

David West, Merck Laboratories

Dr. Jo White, Merck Research Laboratories

Tim Wissman, Merck & Co.

Summary of Agreed-Upon Actions

- Staff of the National Immunization Program (NIP) will work with FDA to resolve the issue on inconsistency of the package inserts and ACIP recommendations. This will be addressed at the February, 1995, ACIP meeting.
- Comments on the varicella recommendation are due to Gloria Kovach by November 10.
- November 15 is the due date for comments on the draft statement, "Prevention and Control of Serogroup C Meningococcal Disease: Evaluation and Management of Outbreaks."
- A working group was formed to draft a new polio recommendation. The members are: Dr. B. DeBuono (Chair), Dr. J. Hackell (consultant), Dr. N. Hails, Dr. C. Schieffeltz (consultant), Dr. J. Ward, and Dr. R. Zimmerman.
- A working group on adolescent immunization was formed. Members of the group are: Dr. N. Hails (Chair), Dr. A. Elster (consultant), Dr. J. Ward, and Dr. W. Williams. NIP staff will work with this group to develop a draft adolescent immunization statement for the February, 1995 ACIP meeting.
- Dr. Steve Hadler and staff will draft some principles and guidelines on combination products for the February, 1995, ACIP meeting. Manufacturers should submit information to Dr. Hadler by November 20.
- One-half day of the June, 1995, ACIP meeting will be dedicated to discussing acellular pertussis vaccines and efficacy trials of infants.
- A working group to discuss WIC's immunization program was formed to formulate a draft recommendation. Members of this working group are: Dr. F. Guerrera (Chair), Dr. B. DeBuono, Dr. R. Jackson, Dr. E. Maes.
- Comments are due to Gloria Kovach by December 1, on the draft recommendation for hepatitis B.
- NIP is to complete a draft statement on vaccine safety changes in ACIP recommendations following a review of the IOM report on vaccine safety.
- Dr. Gina Rabinovich will mail the National Vaccine Program report to ACIP members.

MINUTES

Dr. Jeffrey Davis, Chairman of the Advisory Committee on Immunization Practices (ACIP), called the meeting to order at 8:35 a.m.

Dr. Dixie Snider, Acting Associate Director for Science for CDC and Acting Secretary for ACIP, welcomed Dr. Marie R. Griffin from Vanderbilt University Medical Center and Dr. Fernando Guerra from the San Antonio Metro Health District who have been appointed to the ACIP.

Dr. Snider also announced several changes in ex officio and liaison members. Dr. Jerry Zelinger has joined the ACIP from the Health Care Financing Administration (HCFA). Dr. Cindy Ruff represented Dr. Zelinger at this meeting. Dr. Stanley Gallmeyer from the University of Louisville School of Medicine has replaced Dr. Marvin Amstutz as the liaison from the American College of Obstetricians and Gynecologists. Also, the National Vaccine Program (NVP) will be appointing a liaison to replace Dr. John Robbins. Dr. Gina Rabinovich from the National Institutes of Health (NIH) will be presenting the NVP update at this meeting.

Finally, two new liaison organizations were welcomed to ACIP. The Association of Teachers of Preventive Medicine represented by Dr. Richard Clover of the University of Texas Medical Branch at Galveston, and the Pharmaceutical Research and Manufacturers of America, represented by Dr. Thomas L. Copmann, Biotechnology and Biologics Regulatory and Scientific Affairs.

Dr. Davis then asked members to complete and return by Nov. 1 a handout allowing ACIP material to be transmitted electronically.

Dr. Davis also said that an agreed-upon meeting about the inconsistency of package inserts--committed to by Dr. Carolyn Hardegree, FDA-- had not as yet occurred. It is scheduled for Nov. 21, and a report of this meeting will be provided at the next meeting of the ACIP.

The 75 people in attendance then introduced themselves, followed by introductions and declarations of potential conflicts of interest by the appointed members.

Dr. Steve Schoenbaum has no consulting relationship with any pharmaceutical company. His wife has stock in Abbott Laboratories, Amgen Inc., Bristol Myers Squibb, Glaxo, and Merck Sharpe & Dohme (MSD).

Dr. Marie Griffin served as a consultant for Searle.

Dr. Joel Ward has no financial interest in any pharmaceutical company. The Research Institute at UCLA, which he directs, receives some funding from MSD and SmithKline Beecham (SKB).

Dr. Rudolph Jackson has a potential conflict of interest with Wyeth.

Dr. Ed Thompson has served as a consultant for Connaught.

Dr. Nea Halsey has no financial interest in any of the vaccine manufacturer. He has received grant support in the last 12 months from Pasteur-Merieux, Connaught Labs, and SKB. He has received travel support from SKB and has been promised support from the Consortium of European Manufacturers.

Dr. Kathy Edwards is currently receiving funding from Sclavo, Biocene and Lederle-Praxis. She is doing some consulting for SKB and is on the speaker's bureau for Connaught and Lederle.

Dr. Fernando Guerra is the principal investigator for a field trial using Amvax. He has also served as a consultant for the Salon Consulting Group and he has previously received a grant from MSD.

Drs. Davis and DeBuono had no potential conflicts of interest.

Minutes Approved

Dr. Davis asked members of the Committee if the minutes from the June, 1994 meeting were accurate and complete. The minutes were accepted as distributed. ACIP

Immunization Coverage in the United States

Ms. Elizabeth Zell summarized vaccination coverage for all children in the United States, determined by the National Health Interview Survey. She noted that for each vaccine, coverage increased from 1992 to 1993, but that differences in coverage levels have widened by poverty level and race (levels are lower for the poor and blacks, respectively). The coverage levels, by vaccine, range from 16% (for hepatitis B) to 88% (for DTP3); these levels are detailed in the Oct. 7, 1994, MMWR.

Varicella Vaccine Update

Dr. Sandra Holmes, National Immunization Program (NIP), updated the group on CDC's varicella surveillance projects. Three sites --Philadelphia, Los Angeles County, and Travis County (Texas)--have been designated as active surveillance sites. She called members' attention to the revision of the draft raft recommendations for varicella prevention in three areas: health-care workers (pp. 20-

21), VZIG for pregnant women (pp. 37-38), and acyclovir (pp. 11-12). She requested that ACIP members return any comments by Nov. 10.

Next, Dr. Jo White of MSD updated the Committee on the status of VARIVAX, Merck's varicella vaccine. The license has been applied for with FDA. She showed data on the vaccine's good antibody persistence in healthy children and adults 3 years after vaccination. Breakthrough rates are less than 1% a year. Two post-marketing surveillance studies are planned. One with Kaiser Northern, involving 20,000 children, to look for serious adverse effects. The other, a day care and family effectiveness study, will follow up 1,000 children for 10 years. In response to a request, Dr. White agreed to distribute a table of her data on antibody titers to the ACIP.

Vaccine Safety Update

Next, Dr. Robert Chen gave an overview of vaccine safety in general. Immunizations are definitely cost-effective, he said, and will be needed indefinitely unless a disease is eradicated. High vaccine coverage results in an increase in both causal and incidental vaccine adverse events: this monitoring is needed to maintain public confidence. VAERS is now NIP's largest surveillance system, receiving about 10,000 reports annually. These reports have received substantial media attention recently. While VAERS is needed, it is limited in its scientific utility, he said. Most VAERS reports are of adverse events without unique laboratory or clinical findings attributable to the vaccine. Epidemiologic studies are needed in such settings to evaluate whether vaccinated persons are more likely to have such adverse events. VAERS reports provide less than one-quarter of the information needed for such an epidemiologic evaluation. Additional studies such as the large-linked database are needed to provide more information regarding the relationship between vaccine and adverse events.

Next, Dr. John Glasser discussed how large-linked database studies show great promise in epidemiologic studies. Since 1991, CDC has worked with four health maintenance organizations to create vaccination registries and link them with other medical records for a cohort of over 500,000 children 0-6 years of age. Taking advantage of the diversity in timing of actual vaccinations administered, such linked database studies in used to sort out the individual effects from the combined effects of some vaccination e.g., DTP + OPV and infection site abscesses).

Revision of ACIP Recommendations Based on Findings of the Institute of Medicine (IOM) Report on Vaccine Safety

Dr. Phil Rhodes summarized and clarified three major conclusions from the Miller study, "Pertussis Immunization and Serious Acute Neurologic Illnesses in Children" (Br J Med J 1993; 307:1171-6). Then Dr. Jessica Tuttle went over proposed updates of current ACIP recommendations in accordance with the IOM reports. There was some discussion about the distribution of risk within the 7-day period following D

vaccination. A working group was appointed to develop specific wording of the DTP recommendation to be voted on later. change to

Regarding the risks associated with MMR vaccine, the ACIP decided to delete the phrase "clinically significant" in the phrase "Children with a previous history of thrombocytopenic purpura or thrombocytopenia at the time of scheduled vaccination may be at increased risk for *clinically significant* thrombocytopenia following MMR".

Members were asked to mail in comments on the *MMWR* supplement, contained in the briefing book, and for advice on whether to reprint the IOM report in conjunction with the ACIP response to the IOM report in the *MMWR*. The sense of the Committee was that reprinting the IOM report would only detract from the ACIP recommendation.

Update on Vaccine Schedule Simplification

Dr. Jacqueline Gindler updated the ACIP on progress made by the working group to simplify the vaccine schedule. CDC is working with a contractor to develop and field test several formats for a simplified schedule. The ACIP voted to call this schedule the "Recommended Childhood Immunization Schedule--United States, 1995," and to permit the Td booster to be given between 11 and 16 years of age. The schedule will be published by the AAP, AAFP, and by CDC in the *MMWR* in January 1995.

Dr. Gindler also reviewed issues related to accelerated immunization, discussed the minimum recommended intervals between vaccine doses, and presented a schedule of accelerated schedule. Dr. Halsey noted that there is potential confusion associated with the accelerated Hib vaccination schedule because one Hib product requires only a two dose primary series, and the other two products require a three dose primary series. Dr. Tom Vernon agreed to ask MSD officials whether it would be acceptable if the schedule simply recommends three (or two, depending on age) doses of any Hib product. Dr. Halsey responded that the schedule will recommend three doses of any conjugate vaccine, recognizing that some children who receive the MSD product will receive an extra dose.

Revision of the Meningococcal Vaccine Recommendation

Dr. Jay Wenger briefly outlined the revisions in the ACIP draft recommendation on "Prevention and Control of Serogroup C Meningococcal Disease: Evaluation and Management of Outbreaks". He asked for written comments to be returned to Gloria Kovach by Nov. 15.

Review of Draft Recommendation on BCG

Dr. Halsey said that the BCG Working Group was very near to completing a final statement on BCG to be published jointly by the ACIP and the Advisory Committee on the Elimination of Tuberculosis (ACET), with consultation from the Hospital Infection Control Committee.

Control Practices Advisory Committee (HICPAC). Detailed comments from members have been incorporated. The document will be approved by ACE at their next meeting, in October 1994, so Dr. Halsey needed any proposed changes by October 21. The final draft of the recommendation should be approved by the next ACIP meeting.

Revision of the Polio Vaccination Recommendations

Dr. Roland Sutter reviewed the changes in the revised ACIP polio statement to the ACIP review of the first draft and discussed still-unresolved issues. I subsequent Carlton Meschievitz, Connaught Laboratories, presented the latest data on sequential schedules.

One issue, the minimum timing between vaccine doses, was resolved by a vote of 9-1. ACIP members agreed to retain the proposed wording that the new minimum interval between doses for those who begin the series late is 4 weeks. A second issue was whether to include a permissive recommendation to present a schedule for sequential II OPV vaccination to parents as an alternative to the schedule using OPV only, which was not resolved.

Suggestions for changes in the recommendation from members included mentioning that the International Committee on Polio Eradication has concluded that there is no circulation of wild poliovirus in the Western Hemisphere; retitling the statement (to "Maintaining a Polio-Free Status"; that is, drop the word "control"); and adding a summary at the beginning of the statement.

Many members were concerned that, because polio eradication has been achieved in the Americas, a sequential schedule should now be more seriously considered to reduce the risk of vaccine-associated paralytic poliomyelitis. A working group was formed to address this issue and to identify the information needs and subissues that would be considered critical for the ACIP to consider making a change to recommend a sequential schedule. This group is composed of Drs. Halsey, Ward, Zimmerman, and DeBuono with Drs. Meschievitz (Connaught) and Jill Hackell (Lederle) as consultants. The ACIP did vote unanimously, by straw vote, to state that it continues to endorse that all children should receive OPV.

Also, it was noted that CDC staff are considering whether the IOM should be asked to convene an expert group to address the need for a sequential IPV-OPV schedule: twice in the past (1977 and 1988) the IOM has addressed this issue.

Status of Development of New Combination Vaccines (Manufacturers' Reports)

Dr. Steve Hadler, NIP, said that manufacturers have frequently expressed their desire to have early input from advisory committees about how combination vaccines might be used. Therefore, attendees from Lederle, SKB, Connaught and Merck were invited to

update the ACIP on their combination vaccines and pose critical issues which might benefit from ACIP input.

Dr. Hackell from Lederle summarized the general problems with development of combination vaccines. She said that new standard product quality control and release tests for combination products need to be developed and that we need to be careful that vaccine potency is not sacrificed for the convenience of administration. She mentioned the potential new vaccines and the following future possible combination vaccines: a pediatric meningitis vaccine (with glycoconjugates against *Hemophilus influenzae b* (Hib), *Streptococcus pneumoniae*, and *Meningococcus*); a STD vaccine (with HIV, herpes, hepatitis B); a viral pneumonia vaccine and an otitis media vaccine. She emphasized that both policymakers and manufacturers need to work together to keep vaccine schedules simple and to combine vaccines in sensible ways to minimize confusion.

Dr. B. Howe from SKB gave a status report on SKB's seven combination products. Results of two studies with its DTP (whole-cell)-hepatitis B combination vaccine outside the United States revealed that this vaccine has had 100% or close to 100% vaccine response rates. In the U.S. pediatric vaccine program, SKB has the following products for development of combinations: DTPw (available through the Michigan Department of Health), PRP-T, Engerix-B, and DTPa (acellular). A recent preliminary study in Germany of the last product demonstrated vaccine efficacy of 89.9%. The combined pediatric vaccines under development in the United States are:

- DTPw-Hib
- DTPw-HB-Hib
- DTPa
- DTPa-HB-Hib
- DTPa-eIPV-HB-Hib

Dr. Meschievitz, Connaught, said that Connaught/Pasteur Merieux is currently working on the following vaccines: DTP/PRP-T; DTPa/PRP-T, and DTP-IPV. Connaught Laboratories/Pasteur-Merieux manufacturer is also considering at the following vaccines:

- Meningococcal conjugates (serotypes A,C,Y, and W-135)
- Lyme disease
- Rabies (Vero cell)
- AIK-C measles
- Pertussis acellular
- Typhoid polysaccharide

Connaught is also considering at vaccine vectors for rabies, Japanese encephalitis, malaria, and HIV.

Dr. David West presented data from Merck. It has three combination products under development:

MMR varicella
hepatitis A/hepatitis B
H. influenzae type b/hepatitis B

A phase III clinical trial is planned for the MMR varicella combination product next year. The hepatitis A/hepatitis B vaccine is achieving 97% seroconversion rates following the third dose, and phase III trials in adolescents and adults are anticipated. COMVAX (the Hib-HB vaccine) has been assessed in several clinical trials, which the antibody response has been high (99%).

Dr. West then outlined several issues which he felt would benefit from ACIP consideration:

1. New combination vaccines should not increase adverse effects or decrease the immune potency of any antigen to a clinically significant degree.
2. Standards are needed (for example, definition of clinically important endpoints, sample sizes, power) on which to base studies of vaccine interactions and mixed vaccine regimens involving vaccines from different manufacturers.
3. Logistical simplicity vs. over immunization, when using combination vaccines (e.g., DTP-Hib-HB vaccine)

During follow-up discussion, ACIP members concurred that they might need to consider developing guiding principles for such issues and suggested that manufacturers submit issues by November 19 to Dr. Hadler so this effort could begin. A member of the audience noted that FDA has a book in press that summarizes a workshop on combination vaccines convened by FDA in August 1993.

Dr. Rabinovich, NIH, said that perhaps the most useful contribution from ACIP members would be the development of a policy statement addressing the issues and proposing that the ACIP would consider for the introduction of new combination vaccines. This statement could include what characteristics of new vaccines would be most useful for universal use. Another audience member said ACIP should look into European and U.S. older formulations of vaccines with an eye toward developing a "global standard."

Update on the Status of the Vaccines for Children Program (VFC)

Dr. Jose Cordero, Deputy Director of the NIP, said that to assure sustainable networks for immunizing all of the 4 million children born every year, the infrastructure of immunization delivery services must be enhanced and partnerships with private providers must be expanded. Ten regional meetings focused on reaching out to developing

such partnerships have just been completed. As of October 1, one half of the states were ready to provide vaccines to private providers through VFC. The computer system needed to order vaccine were operating on September 6 and orders began to be received. States that have ordered vaccine through VFC have received their vaccines, and vaccination with VFC supplied vaccines is beginning.

Dr. Cordero also updated the ACIP on the Government Accounting Office (GAO) report, an audit of the VFC conducted this summer. That report noted that only 4 of 15 contracts had been awarded in July; however, all 15 have now been awarded. The report also charged CDC with not doing enough to enroll. CDC had always intended this to be the states' job, Dr. Cordero said, and states are enrolling physicians to participate in the VFC program. The report also stated that CDC had based administrative fee caps on costs submitted by providers. HCFA sets fee caps and when the data needed were not available, HCFA relied on AAP data. He noted, however, that HCFA is undertaking a study to determine true costs and to set future fee caps. The GAO also charged that the VFC did not have an adequate system of accountability; however, Dr. Cordero said that financial accountability is an essential part of the VFC program. The GAO also raised the issue of evaluation of the VFC. Such a plan has been developed.

The meeting adjourned for the day at 6:00 p.m. The ACIP reconvened its meeting on October 20 at 8:30 a.m.

Adolescent and Adult Immunization

Dr. Halsey introduced this topic by reviewing the rationale for having a routine early adolescent visit. He outlined a series of recommendations for the ACIP to consider during this meeting:

1. Recommend an early adolescent immunization visit.
2. Recommend Td booster at 11-12 (or 14-16) years.
3. Recommend catch-up MMR2 at 11-12 years.
4. Recommend hepatitis B vaccination catch-up during adolescence.

Dr. Art Elster from the AMA provided rationale regarding how an adolescent visit would fit into a larger strategy to deliver care to adolescents. He said an early adolescent visit could be a time to assess 14 topics/health conditions ranging from injury prevention and preventing eating disorders to prevention of infectious diseases. Dr. Roland Sutter provided data from the United States and other countries on the prevalence of antibodies to tetanus as a consideration for lowering the age of the Td booster dose to 11-12 years. He concluded that tetanus immunity levels are lower in school-aged adolescents than expected.

The ACIP then voted on a motion to recommend a routine immunization visit at 11-12 years of age. This motion passed unanimously among the eight members present (Drs. Schoenbaum and Thompson were absent.)

The ACIP then voted on a motion to recommend a routine booster dose of vaccine at 11-16 years of age. This motion also passed unanimously, 8-0.

Finally, the ACIP voted on a motion that "during this early immunization visit, all children 11-12 years of age who have not previously received two doses of MMR after 12 months of age should receive another second dose of MMR at that time." NIP staff will develop the correct wording of this statement. The motion passed unanimously, 8-0.

Dr. Hal Margolis led a discussion of hepatitis B adolescent immunization. Although adolescent hepatitis B immunization is not cost-saving, per se, he said the cost per year of life saved (\$5,500-\$7,917) are within the range considered acceptable for other preventive interventions, such as isoniazid preventive therapy. A motion that all individuals not previously vaccinated with hepatitis B vaccine be vaccinated at 11-12 years of age passed unanimously, 8-0.

Revised Recommendations for Hepatitis B Vaccination

Dr. Margolis presented adult hepatitis B issues unresolved from the last ACIP meeting. He reviewed how the hepatitis B working group had resolved multiple issues including post-vaccination testing (see his handout, entitled "Summary of discussions by the ACIP working group on adult immunizations," dated Oct. 18, 1994.) It was decided that all ACIP members needed additional time to review that handout and return their comments by December 1; a fully revised draft statement will be sent to members well before the next meeting.

The Need for ACIP Recommendations on Immunization Practices: Immunization Linkage with WIC

Dr. Hadler said the ACIP was being asked to comment on the need to develop recommendations/guidelines to enhance childhood immunization programs, becoming involved with recommendations regarding immunization practices. He introduced Dr. Ed Maes, NIP, who led a discussion of collaborative studies with WIC, the Supplemental Food Program for Women, Infants, and Children which provides support to 40% of the U.S. annual birth cohort (4.4 million low-income children). Maes asked the committee to consider the following questions:

1. Does the ACIP believe it has a role in developing recommendations regarding programmatic operations which might increase vaccination coverage levels?

2. If so, how would the Committee like to proceed in making programmatic recommendations?
3. Does the ACIP find the data compelling to recommend the linkage of immunization with WIC?

Drs. Charles Lebaron and Sonja Hutchins, NIP, then reviewed studies conducted in New York City and Chicago, respectively, which demonstrated the effectiveness of linking WIC and immunization services on increasing immunization coverage. Mr. Stan Garnett, the Director of WIC at the federal level, said he thought WIC was a perfect match for the Immunization Program, but said the infrastructure would be needed by the addition of 1 million participants during the next 2 years. He said that Congress recently allocated \$10 million for immunization through WIC programs.

During follow-up discussion, ACIP members indicated they were impressed with the increases in coverage associated with the interventions and agreed to review the statement encouraging linkages between WIC and immunization in a future meeting. A working group of ACIP members and CDC staff will be formed.

Adult Immunizations (continued)

Dr. Pierce Gardner read the following statement which he hoped the ACIP would adopt:

The ACIP strongly recommends that age 50 years be established as a specific time to review overall immunization status, to give tetanus-diphtheria immunization(s) as indicated, and to determine specifically whether the patient has a risk factor that indicates the need to receive a dose of pneumococcal vaccine and begin annual influenza immunization.

The American College of Physicians is recommending this statement. The ACIP voted unanimously to endorse this statement (with certain modifications suggested by committee members). How this approved proposal will be made public will be resolved by Dr. Gardner and NIP staff.

Next, Dr. Walter Williams, NIP, updated the ACIP on major programmatic issues related to adult immunization. One was the National Vaccine Advisory Committee Report on Adult Immunization, which was adopted in January and summarized in the October 12 issue of *JAMA*. It establishes five major adult immunization goals for the United States and makes 18 recommendations to achieve them. The recommendations state that the CDC should assume a more prominent role in adult immunization and a federal adult immunization grant program should be established to assist state and local health departments.

Second, publication of a GAO report on adult pneumococcal and influenza vaccination under Medicare is imminent. The findings of this report will hopefully identify areas in which HHS efforts can be improved.

Third, vaccination levels have improved to protect against influenza and pneumococcal disease. Fourth, HCFA has launched a major public relations campaign to improve immunization coverage rates against these two diseases. Dr. Williams also reviewed NCHS provisional mortality data for these diseases and announced that Adult Immunization Awareness Week will be October 23-29, 1994.

CDC will be working with other HHS agencies in a major effort to develop a strategic implementation plan for the NVAC recommendations. CDC will also work more closely with HCFA to improve use of the covered benefits under Medicare.

NCES Annex Material (continued)

The ACIP voted unanimously to adopt the wording of an ACIP working group on the NCES data regarding DTP. (See handout #1.)

Recommendations for Prevention of Hepatitis A: Hepatitis A Vaccine and Immune Globulin

Dr. Craig Shapiro, NCID, reviewed the epidemiology of hepatitis A and current proposed ACIP recommendations for preventing it. He said that SKB has applied for licensure of a hepatitis A vaccine. A draft of the recommendations has been reviewed by the hepatitis A working group, and Dr. Shapiro is incorporating suggestions. Dr. Shapiro will distribute a new draft to the full committee and asked for comments from committee and liaison members so the draft can be reworked before the next meeting.

Vaccination of Health Care Workers (HCWs)

Dr. Ray Strikas, NIP, updated the ACIP on the recent publication of a special supplement to vol. 10 of the *American Journal of Preventive Medicine*, entitled "Immunization in Medical Education." The supplement was published cooperatively by CDC and the Association of Teachers of Preventive Medicine as part of a project to develop immunization materials for medical students, residents, and practicing physicians. Questions or comments should be addressed to Dr. Strikas. Similar documents on nursing and public health education will hopefully be developed.

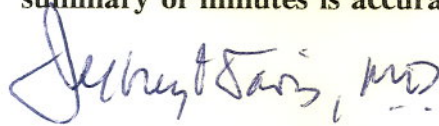
Dr. Strikas then updated the Committee on the status of a draft statement on vaccination recommendations for HCWs, being jointly issued by ACIP and CPAC. He felt staff could not further proceed with the document until told how to solve the handling of varicella vaccine, BCG, and hepatitis B recommendations. The committee favored resolving the BCG and hepatitis B issues and then advance the draft with a

Dr. Leslie Ball updated the ACIP on this program, which has met the basic policy goals it established 6 years ago. The Vaccine Injury Table revision should be pushed forward; this should be done shortly. The process of adding Hib and hepatitis B vaccines is currently underway; this requires both legislation and the rulemaking process.

Public Comment

Dr. Davis asked if there was any public comment. There was none. He reminded members that the dates of the next ACIP meeting are February 9-10, 1995. He said that an adolescent immunization working group will be appointed later. The meeting was adjourned at 3:00 p.m.

I hereby certify that, to the best of my knowledge, the foregoing summary of minutes is accurate and complete.



Jeffrey P. Davis, MD, Chairperson

Date: 2/28/95

ATTACHMENT I

The National Childhood Encephalopathy Study (NCES) and other controlled epidemiological studies have provided evidence that DTP can cause acute encephalopathy (ref A rslade, 1981; Walker, 1988; Gale, 1990; Griffin, 1990; IOM, 1991). This adverse event occurs rarely with an estimated risk of between 0.0 and 10.5 per million DTP immunizations (IOM, 1991).

New data from a follow-up of the NCES indicate that children who experienced a serious, acute neurologic illness were significantly more likely 10 years later to have chronic nervous system dysfunction than control children. These children with chronic nervous system dysfunction were more likely than controls to have received DTP within 7 days of onset of their original serious acute neurological illness [12/367 (3.3%) vs. 6/723 (0.8%)]. Miller, 1993).

After reviewing the follow-up data, the IOM concluded that the NCES provided evidence of an association between DTP and chronic nervous system dysfunction in children who had developed a serious acute neurologic illness following DTP. The committee proposed 3 possible explanations for this association: 1) the acute neurologic illness and subsequent chronic nervous system dysfunction might have been caused by DTP; 2) DTP might trigger an acute neurologic illness and subsequent chronic nervous system dysfunction that otherwise would not have occurred in children with underlying brain or metabolic

abnormalities; or 3) DTP might cause an acute neurologic illness in children with underlying brain or metabolic abnormalities that could have led to chronic nervous system dysfunction even if the acute neurologic illness had not developed (ref IOM). The IOM concluded that the NCES data do not support one explanation over another.

According to the IOM, the balance of evidence was consistent with a causal relationship between DTP and some forms of chronic nervous system disorders in children who developed an acute neurological disorder following DTP. However, the IOM also concluded that the data are insufficient to indicate whether or not DTP increases the overall risk in children of chronic nervous system dysfunction.

A subcommittee of the National Vaccine Advisory Committee also reviewed the study, and concluded that the data are insufficient to accept or reject whether DTP administration prior to the acute, neurologic event influenced the potential for neurologic dysfunction 10 years later (Ad hoc Subcommittee of the NVAC, 1994).

The ACIP concurs with this evaluation.

Although the NCES examined and reported risk in the 7 days following DTP, the data indicate that the increased risk of serious acute neurologic illness occurs primarily in the first 3 days after DTP (Alderslade, 1981). Thus, if an association between DTP and chronic encephalopathy exists, the risk is primarily in the first 3 days following DTP.